AMENDMENT(S) TO THE CLAIMS

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Previously presented) A method of classifying an image, the method comprising:

obtaining an image;

determining one or more classification thresholds;

determining a concentration ratio for the image;

comparing the concentration ratio to at least one of the one or more classification thresholds; and

classifying the image based on the comparison of the concentration ratio to at least one of the one or more classification thresholds, wherein determining the concentration ratio for the image includes determining the concentration ratio according to the following

$$CR = \left(\sum_L P_L \right)^n \bigg/ \left(\sum_L P_L^n \right)$$

where CR is a concentration ratio, n is greater than 1, and P_L is a population at a level L.

12. (Previously presented) A method as claimed in claim 11 wherein n is an even integer.

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Previously presented) An image classifying processor, the processor configured to obtain an image, obtain one or more classification thresholds, determine a concentration ratio for the image, compare the concentration ratio to at least one of the one or more classification thresholds, and classify the image based on the comparison of the concentration ratio to at least one of the one or more classification thresholds, wherein the processor is configured to determine the concentration ratio for the image according to the following:

$$CR = \left(\sum_L P_L \right)^n \Big/ \left(\sum_L P_L^n \right)$$

where CR is a concentration ratio, n is greater than 1, and P_L is a population at a level L.

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Previously presented) A method of processing an image, the method comprising:

capturing an image of an object;

classifying the image in a class using a concentration ratio;

using the class to modify the operation of an image capturing device; and

applying controlled, equalization to an image generated by the image capture device, where the controlled, histogram equalization uses a concentration ratio that indicates a relative level of smoothness of a distribution of a population of elements in the image, wherein the concentration ratio is determined according to the following:

$$CR = \left(\sum_L P_L \right)^n \Bigg/ \left(\sum_L P_L^n \right)$$

where CR is the concentration ratio, n is greater than 1, and P_L is a population at a level L.

25. (Previously presented) An image processing system comprising:

an image capture device;

an image classifier coupled to the image capture device in a feedback loop; and

a controlled, equalization processor coupled to the image capture device, that uses a concentration ratio that indicates a relative level of smoothness of a distribution of a population of elements in the image, wherein the processor is configured to determine the concentration ratio for the image according to the following:

$$CR = \left(\sum_L P_L \right)^n \Bigg/ \left(\sum_L P_L^n \right)$$

where CR is the concentration ratio, n is greater than 1, and P_L is a population at a level L.

26. (Previously presented) An image processing system comprising:

an image capture device configured to capture an image; and

an image classifier coupled to the image capture device in a feedback loop, the image classifier configured to determine a concentration ratio for the image that indicates a relative level

of smoothness of a distribution of a population of elements in the image, compare the concentration ratio to at least one or more classification thresholds, and classify the image based on the comparison of the concentration ratio to at least one of the one or more classification thresholds, wherein the image classifier is configured to determine the concentration ratio for the image according to the following:

$$CR = \left(\sum_L P_L \right)^n \Big/ \left(\sum_L P_L^n \right)$$

where CR is the concentration ratio, n is greater than 1, and P_L is a population at a level L.